Remarks/Arguments

Applicants respectfully request consideration of the subject application as amended herein. This Amendment is submitted in response to the Office Action mailed on December 14, 2007. Claims 1-21 are rejected.

In this Amendment, claims 1, 3, 6, 8, and 15 have been amended. No claims have been cancelled or added. It is respectfully submitted that the amendment does not add new matter.

Applicants reserve all rights with respect to the applicability of the Doctrine of Equivalents.

Allowable Claims

The Office action indicates that claims 3-4 and 17-18 would be allowable if rewritten to overcome the rejections under 35 USC 112, second paragraph. Applicants wish to thank the Examiner for holding these claims to be allowable.

Specification Objections

The Examiner has objected to the Specification for using certain acronyms without definition. Therefore, Applicants have inserted definitions for these acronyms via amendments to the Specification. Applicants respectfully submit that these amendments do not add new matter. Applicants respectfully request the withdrawal of these objections.

Claim Rejections under 35 U.S.C. §101

The Examiner has rejected claims 8-14 under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter. Applicants have amended the definition of a computer readable medium in the Specification, to exclude transmission medium. Therefore, Applicants respectfully submit that the claims as amended are statutory.

Claim Rejections under 35 U.S.C. §112

The Examiner has rejected claims 1-21 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants have amended the claims to more particularly point out and distinctly claim the subject matter which applicant regards as the invention. Therefore, Applicants respectfully request the withdrawal of the claim rejections under 35 U.S.C. 112, second paragraph.

Claim Rejections under 35 U.S.C. §103(a)

The Office Action has rejected claims 1, 2, 3-16, and 19-21 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 7,200,658 to Goeller in view of Applicants background section (conventional system).

Goeller discusses use of a trace route to known servers, to determine an approximate location of a client system. However, as noted in the Office Action, Goeller does not address the use of trace routes in a peer-to-peer system.

The conventional system, described in the Background also does not discuss trace route used in a peer-to-peer environment. Specifically, the conventional system is described in Paragraph 5 of the Specification as follows:

> **[0005]** However, because peers on a distributed content delivery network are relatively ignorant of the network topology, they can make bad decisions about how to deliver content. For example, a peer may attempt to retrieve content from a server that is located a large number of hops away, when a closer server is able to serve the same content. This sub-optimal choice of servers can result in poor performance in retrieving content and can create unnecessary network traffic.

The Specification continues, indicating in Paragraph **[0007]** that "what is needed is a method and an apparatus that allows a network administrator to explicitly establish peering policies for a content delivery network."

However, a statement of what is needed is not an "A statement by an applicant in the specification identifying the work of another as "prior art," as required by MPEP 2129 to qualify as "Admitted Prior Art." Rather, the statement of what is needed simply sets out, as suggested by MPEP 608.01(c) where it states that "Where applicable, the problems involved in the prior art or other information disclosed which are solved by the applicant's invention should be indicated." Clearly, by stating what is "needed," the problems which are solved by the applicants invention are indicated. But this is not in any way equivalent to admitted prior art.

Rather, the portion of the Background which is properly the "conventional system" on which the Office Action can rely in rejecting the claims constitutes Paragraphs 4, 5, and 7. The paragraphs addressing the problem to be solved, are not a statement by an applicant identifying the work of another as prior art.

The conventional system as described in the background does not teach or suggest using a trace route in a peer-to-peer system. Rather, it describes simply the prior art of peer-to-peer systems.

Claim 1, as amended, recites

> A method for determining a network topology in a peer-to-peer network, comprising:
>
> performing a trace routing operation to obtain a traceroute from a first client to a directory server, wherein a traceroute is a map of a path through which a packet travels between the first client and the directory server, including addresses of routers through which the packet travels;
>
> sending the traceroute to the directory server from the first client; and
>
> using the traceroute at the directory server to build a router graph, wherein the router graph represents the topology of the peer-to-peer network.

(Claim 1, as amended).

Neither Goeller nor the conventional system teach or suggest "using the traceroute at the directory server to build a router graph, wherein the router graph represents the topology of the peer-to-peer network." As the Office action states, Goeller does not teach or suggest a peer-to-peer network. The conventional system described in the Background also does not discuss network topologies, or router graphs. Therefore, neither Goeller nor the conventional system teach or suggest having a router graph that represents the topology of the peer-to-peer network.

Furthermore, Goeller does not discuss the use or utility of topology maps at all. The use of a topology map would not be useful in Goeller, as Goeller is concerned with determining a client's location, rather than evaluating the relative locations of the servers. The conventional system also does not address the use of topology maps.

Therefore, claim 1, and the claims that depend on it are not obvious over the combination of Goeller and the conventional system.

Claim 8 as amended recites:

> A computer-readable storage medium storing instructions that when executed by a computer cause the computer to perform a method for determining a network topology in a peer-to-peer network, the method comprising:
>
> performing a tracerouting operation to obtain a traceroute from a first client to a directory server, wherein a traceroute is a map of a the path through which a packet travels between the first client and the directory server, including addresses of the routers through which the packet travels;
>
> sending the traceroute to the directory server from the first client; and
>
> using the traceroute at the directory server to build a router graph, wherein the router graph represents the topology of the peer-to-peer network.

(Claim 8, as amended).

As noted above, neither Goeller nor the conventional system discusses" using the traceroute at the directory server to build a router graph, wherein the router graph represents the topology of the peer-to-peer network." In fact, neither Goeller nor the conventional system addresses the use of a router graph.

Therefore, claim 8, and the claims which depend on it, are not obvious over the combination of Goeller and the conventional system.

Claim 15, as amended, recites:

> An apparatus for determining a network topology in a peer-to-peer network, comprising:
>
> a tracerouting mechanism configured to perform a tracerouting operation to obtain a traceroute from a first client to a directory server, wherein a traceroute is a map of a the path through which a packet travels between the first client and the directory server, including addresses of the routers through which the packet travels;
>
> an upload mechanism configured to send the traceroute to the directory server from the first client; and
>
> a graph building mechanism configured to use the traceroute at the directory server to build a router graph, wherein the router graph represents the topology of the peer-to-peer network

(Claim 15, as amended)

Neither Goeller nor the conventional system discusses" a graph building mechanism configured to use the traceroute at the directory server to build a router graph, wherein the router graph represents the topology of the peer-to-peer network." In fact, neither Goeller nor the conventional system addresses the use of a router graph, much less a graph building mechanism.

Therefore, claim 15, and the claims that depend on it are not obvious over Goeller in view of the conventional system.

Conclusion

Applicant respectfully submits that in view of the amendments and discussion set forth herein, the applicable rejections have been overcome. Accordingly, the present and amended claims should be found to be in condition for allowance.

If a telephone interview would expedite the prosecution of this application, the Examiner is invited to contact Judith A. Szepesi at (408) 720-8300.

If there are any additional charges/credits, please charge/credit our deposit account no. 02-2666.

Respectfully submitted,

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